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FOREST SERVICE RECORDS

Multiple Use Highlights

Pacific Northwest Region

1960



U. S. Department of Agriculture
Forest Service

REGIONAL OFFICE DIVISIONS AND FORESTS
R-6

Regional Forester J. Herbert Stone Box 4137, Portland 8, Oregon

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Engineering	R. F. Grefe
Fire Control	Alfred E. Spaulding
Fiscal Control	Reed H. Jensen
Information & Education	Jack H. Wood
Lands	Russell P. McRorey
Operation	James C. Iler
Personnel Management	Dan E. Bulfer
Range & Wildlife Management	Avon Denham
Recreation	Philip L. Heaton
State & Private Forestry	Thomas H. Burgess
Timber Management	Walter H. Lund
Watershed Management	Kermit W. Linstedt

Forest	Supervisor	City
Deschutes	Ashley A. Poust	Bend, Oregon
Fremont	Clayton N. Weaver	Lakeview, Oregon
Gifford Pinchot	C. Glen Jorgensen	Vancouver, Washington
Malheur	John A. Fallman	John Day, Oregon
Mt. Baker	Harold C. Chriswell	Bellingham, Washington
Mt. Hood	Paul E. Neff	Portland, Oregon
Ochoco	Cleon L. Clark	Prineville, Oregon
Okanogan	Walfred J. Moisio	Okanogan, Washington
Olympic	Lloyd G. Gillmor	Olympia, Washington
Rogue River	Carroll E. Brown	Medford, Oregon
Siskiyou	John R. Philbrick	Grants Pass, Oregon
Siuslaw	Rex W. Wakefield	Corvallis, Oregon
Snoqualmie	Laurence O. Barrett	Seattle, Washington
Umatilla	Charles M. Rector	Pendleton, Oregon
Umpqua	Vondis E. Miller	Roseburg, Oregon
Wallowa-Whitman	John B. Smith	Baker, Oregon
Wenatchee	John K. Blair	Wenatchee, Washington
Willamette	David R. Gibney	Eugene, Oregon

Multiple Use Highlights

Pacific Northwest Region

"--And multiple are the benefits thereof."

This line, from the recent Forest Service film entitled "The Forest", broadly states the management aim for national forest lands. More specifically, Congress enacted legislation on June 6, 1960 which directs the national forests to be managed under principles of multiple use to produce a high level sustained yield of products and services. Thus, the long established Forest Service policy of management for your National Forests is now law.

The work of the Forest Service in Oregon and Washington extends to 23 million acres on 19 national forests. In our "Multiple Use Highlights for 1960" we attempt to show, largely through illustration, how use of resources is planned and managed on this expanse of forest land, and how multiple use is put into action.

Any comments you may wish to make, either on this summary or phases of our work, will be welcome.

A handwritten signature in cursive script, reading "J. Herbert Stone". The signature is written in dark ink and is positioned above the printed name.

J. HERBERT STONE
Regional Forester



MULTIPLE USE means the management of forest and related areas in a manner that will conserve the basic land resource itself, while at the same time producing high-level sustained yields of water, timber, recreation, wildlife, and forage harmoniously blended for the use and benefit of the greatest number of people.

SUSTAINED YIELD of the several products and services of the national forests means the achievement and maintenance in perpetuity of a high-level annual or regular periodic output of the various renewable resources without impairment of the productivity of the land.

RECREATION AND LAND USES



Establishment in 1960 of the 458,505 acre Glacier Peak Wilderness Area on the Mt. Baker and Wenatchee Forests was a highlight in the recreation field. Region 6 now has 2,133,423 acres set aside for wilderness use. Recreation planning developments include completion of ranger district multiple use plans to cover the "Limited Area" status formerly assigned to the St. Helens, Illinois Canyon, Umpqua, and Diamond Lake Limited Areas.



The outdoor recreation use on the national forests of the region reached the all-time high of 9,573,700 visits, a 16% increase over 1959. In a move to help provide additional facilities, the 18 Oregon counties containing Oregon and California revested railroad lands approved a plan whereby a portion of receipts from such lands will be made available to the Forest Service for construction of badly needed recreation improvements.



Region 6 national forests extend from the Pacific Ocean (left) almost to Idaho, and from Canada to California. To provide accommodations for the many visitors, 554 family units were developed under Operation Outdoors bringing the total to more than 3500 since the program began. Field work for the National Forest Recreation Survey is completed.

New type 105 mm recoilless rifles were installed at Mt. Baker and Stevens Pass winter recreation areas to trigger potentially dangerous avalanches at times when it can be done safely.



855,500 winter sports enthusiasts visited the 32 national forest ski areas in the region.

Examinations to determine surface rights have now been completed on 8.5 million acres, or approximately one-third of the National Forest area in the region. This past year 463 mining claims were examined in connection with the multiple use mining law, and 13 patent applications involving 45 claims were processed.



A permit was granted for the initial stages of a water supply pumping system in the sand dune area north of Coos Bay. When in full production the system will supply up to 30 million gallons of water per day. The pumping project is to be conducted compatibly with the recreation resource.



Purchase of right of way for the Lewis River Road and the Muddy River Road provide long sought multi-purpose access to many choice recreation sites and to 6 billion board feet of merchantable timber as pictured in the scenic Lewis River drainage above.

Eight other major cases providing access to 9 billion board feet of timber were completed to help provide access essential to proper management of the multiple resources of the national forests.

FIRE CONTROL

The 1960 fire season was the most severe the region has experienced in many years. Over 77,600 acres burned. The most critical period extended from July 19 to 28 when a series of dry lightning storms set 369 fires on the Malheur, Umatilla and Wallowa-Whitman National Forests. Nineteen of these exceeded 300 acres in size. The largest, the Anthony Fire on the Wallowa-Whitman National Forest (right), burned approximately 19,000 acres.



<u>Number of fires</u>	<u>1960</u>	<u>1959</u>	<u>5-year Average</u>
Lightning	1138	346	852
Man-caused	775	581	472
Total	1913	927	1324
Acres burned	77,641	24,767	12,016



Through the cooperative efforts of many people and organizations, a force of 7200 men, 12 helicopters, 18 air tankers, 35 other aircraft, 217 pumpers, and 108 bulldozers was mobilized to help meet fire emergencies.



Smokejumpers made 457 jumps to fires, mostly in inaccessible areas.



Air tankers cascaded 680,700 gallons of borate slurry and wet water to hold small fires in check, and to cool down sections of large fires so that men and equipment could move in to complete the control job.



Mechanical trail packers are proving their worthiness in serving fire crews. One packer can carry as much as several head of pack stock.



A mobile weather forecasting station is now a part of nearly every large fire organization. It supplies current weather information on which to base fire control decisions. In 1960 the fire weather forecasting section of the U.S. Weather Bureau in Portland was moved to the Forest Service Regional Office to strengthen this important phase of the fire control program.

RANGE AND WILDLIFE



Grazing allotments provide forage for 93,290 cattle and 137,800 sheep. Virtually all national forest lands are habitat for wildlife in many forms.



Revegetation practices include range seeding, water spreading, control of poisonous plants, and control of noxious plants to release the more desirable range plants. In 1960, 9000 acres were reseeded, 5000 acres were sprayed, and 60 acres were improved through water spreading.



Structural improvements necessary to manage the national forest ranges properly are classified as range improvements and include fences, stock water developments, stock bridges, and driveways. The construction and maintenance of these improvements usually is a cooperative effort between the Forest Service and the stockmen using the ranges.



During 1960, 220 miles of fence and 390 stock water developments were constructed. An additional 2700 miles of fence and 1750 water developments are needed to complete the regional program.



Range analysis work has been completed on approximately half of the 730 allotments in Region 6. On key areas, permanent Parker 3-step condition and trend transect plots have been established which, when read and photographed at periodic intervals, will indicate the condition of the range and whether it is improving or deteriorating.





The cooperative elk habitat study with the Washington State Game Commission on the Olympic National Forest is providing information on possible conflicts between big game and tree plantations. Note vegetation inside the enclosure.



Much of the habitat improvement work and studies involving wildlife management in the region is accomplished through cooperative agreements with the State Game Commissions. In Oregon the cooperative projects included upland bird and deer habitat improvements in the form of water guzzlers and food planting (bitterbrush) shown above. The Commission also furnished a substantial part of the clover seed used in rehabilitating the game ranges within the 1960 fire areas.

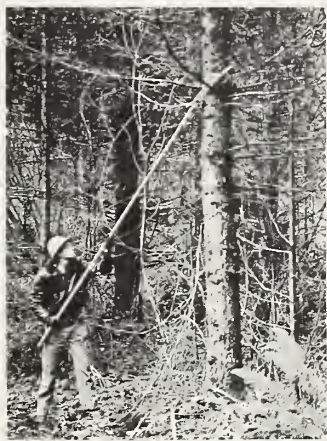
(Photos — Oregon State Game Commission)

TIMBER



In 1960 about 3.5 billion board feet valued at approximately \$73 million was harvested from national forest land, compared to 4.3 billion board feet and \$86 million in 1959. Timber sold amounted to 3.8 billion board feet, worth \$84.4 million compared with nearly 4 billion board feet and \$99 million in 1959. Most of the 97.2 million board feet of merchantable timber killed or damaged by the summer forest fires has either been salvaged or is under contract.

To keep the land in production, more than 48,390 acres were reforested during 1960, with 20 million trees and 3790 pounds of seed to replace the mature timber which was harvested. In addition to the reforestation work, 29,950 acres of young timber stands received improvement work in the form of non-commercial thinning, pruning, and plantation release to increase growth and improve quality for future harvest.





The natural cone crop was generally poor following the 1959 bumper crop. However, the use of fertilizer on an experimental basis produced heavy cone crops in seed orchards (left). Three new seed orchards were established in Douglas-fir and one in ponderosa pine areas.

Hybridization studies continue. A small quantity of hybrid seed was collected on the Siskiyou National Forest for planting at the Wind River Nursery.



The new anti-biotic fungicide, Acti-dione, was used to treat nearly 42,000 blister rust infected western white pine trees. However, until the use of fungicides has been perfected, control measures in young sugar pine stands are being continued through eradication of Ribes, the intermediate host. In the region 324,000 Ribes plants were destroyed on 4400 acres.



The second timber inventory cycle of the region began in 1960. Permanent sample plots on a grid of 1.7 miles have been established on more than two-thirds of the national forests in the region. The information provided includes data on growth, mortality, vigor, and stand condition, as well as actual volume by species. Inventory reports were completed during the year for the Rogue River and Siskiyou National Forests.

SOIL AND WATER



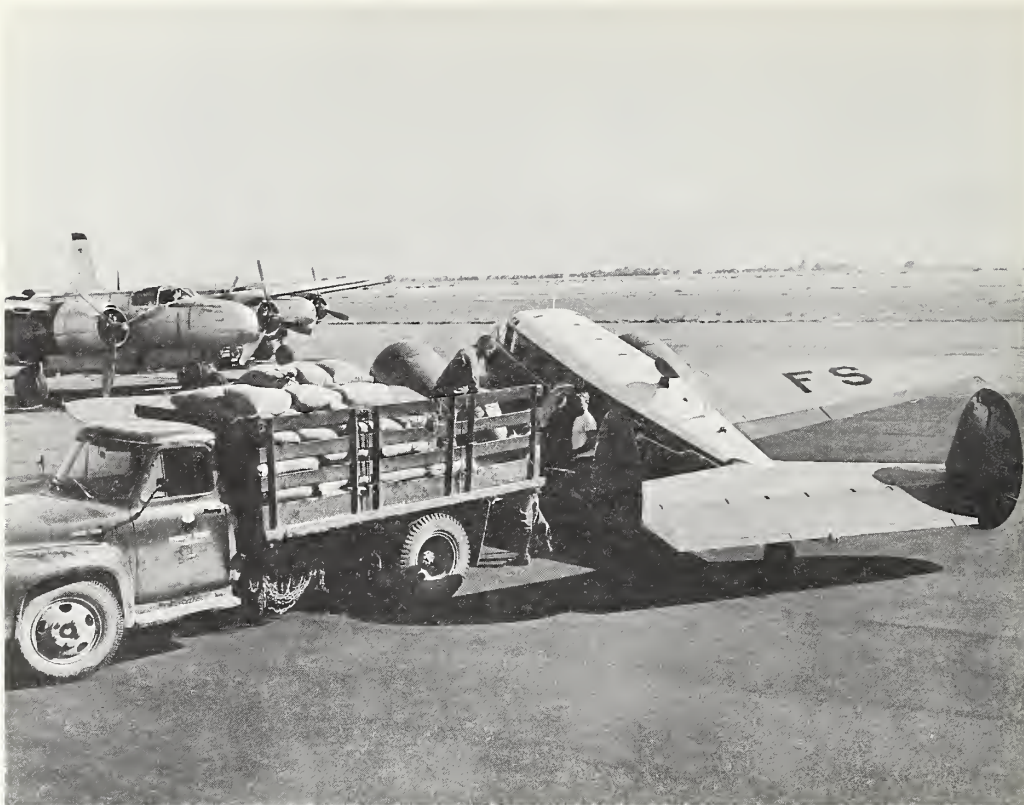
During the past year major efforts were directed toward stabilizing the soil mantle and providing a protective vegetative cover following the disastrous fires which swept over thousands of acres of important watersheds in Oregon and Washington.



Soils are examined to determine the restoration measures needed.



Trees are examined to determine whether the tree was killed or may yet produce seed to restore the area.



More than 50 tons of grass seed were scattered from Forest Service airplanes on some 12,000 acres of vital watersheds and game ranges. In addition, 9500 pounds of tree seed were sown on 9600 acres by helicopter; browse seed was applied by hand on 118 acres, and contour trenching was done on 650 acres to minimize over-land flow of water.



COOPERATIVE FORESTRY

Cooperative Federal-State Programs in Oregon and Washington provide both funds and professional assistance in promoting sound management practices and wise use of forest land. Through the cooperative fire control agreement under the Clarke-McNary Act, each state received about \$525,000. On state protected land there were 1957 fires of which 1465 were man-caused. Total area burned was 32,460 acres compared to 27,430 last year.



The 19 farm foresters hired by Oregon and Washington under the Cooperative Forest Management program provided technical assistance for 4000 woodland owners. Income to these owners from their sales was \$378,350. Cost of the program was \$115,480 of which \$35,390, or 31%, was Federal aid.



The Rural Development Program continued on a pilot county basis. In Stevens County, Wash., the first post treating operation and a new plant to make small furniture and other small wood products have been established. In Lincoln County, Oregon, harvesting of minor forest products was stressed and 760 people sold \$117,440 worth of items such as cones for seed, cascara bark, greenery and Christmas trees. On the Siuslaw National Forest 66 small timber sales averaged 55 thousand board feet each.





Under the Cooperative Tree Planting Program, Oregon and Washington operate four nurseries which produced 17 million trees for planting on state and private lands. Trees sold at cost helped restock 59,760 acres of non-federal land. An additional 59,120 acres was reforested by direct seeding. Cost of growing and distributing the trees was \$243,290.

The Forest Service cooperated with county and state officials in servicing 1425 requests for Agricultural Conservation Program forestry practices involving tree planting and timber stand improvement during fiscal year 1960. In addition, trees were planted on 340 acres removed from production of agricultural crops under the Soil Bank Program to complete the last of the contracts under that program.

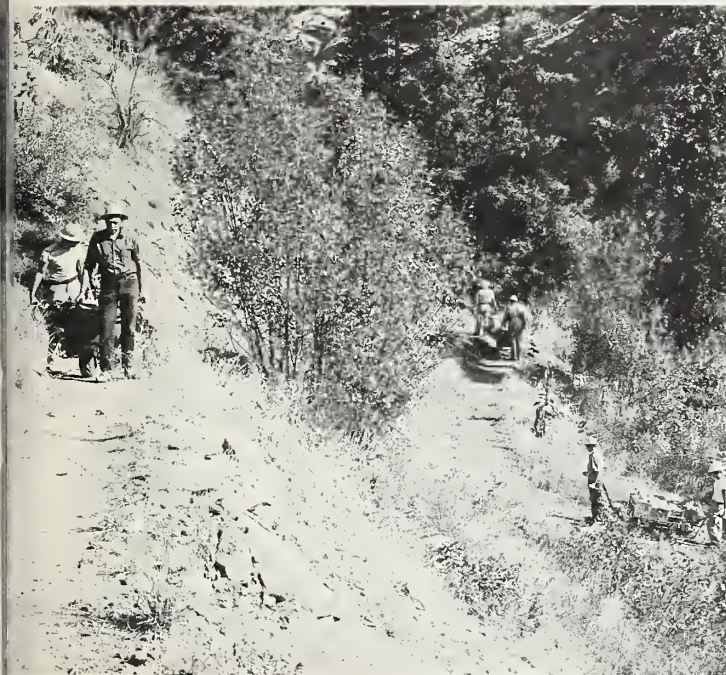


Under General Forestry Assistance, field demonstration and TV programs were given for northwest Christmas tree growers. Two booklets covering harvesting and marketing forest products, and collecting forest seed cones were prepared.

IMPROVEMENTS



During fiscal year 1960 more than 1700 miles of roads of all types were constructed, bringing the total in the region to 26,750. In the same period the Bureau of Public Roads awarded contracts covering nearly 40 miles of forest highway work which amounted to more than \$3.6 million. The forest highway program is prepared jointly by the State Highway Departments, Bureau of Public Roads, and the Forest Service. Adequate access is essential to multiple use management of national forest resources.



108 miles of trail and 4 bridges were constructed or reconstructed, and 73 permanent road bridges were built in fiscal year 1960. These facilities improved access to the multiple resources of the forest. This brought the total trail mileage to more than 18,000 miles and the number of bridges to 1350 in the region.



Dam facilities at the outlet of Trillium Lake on the Mt. Hood National Forest were completed this year. The 60 acre lake will be stocked with fish by the Oregon State Game Commission in a cooperative project to provide additional recreation facilities.

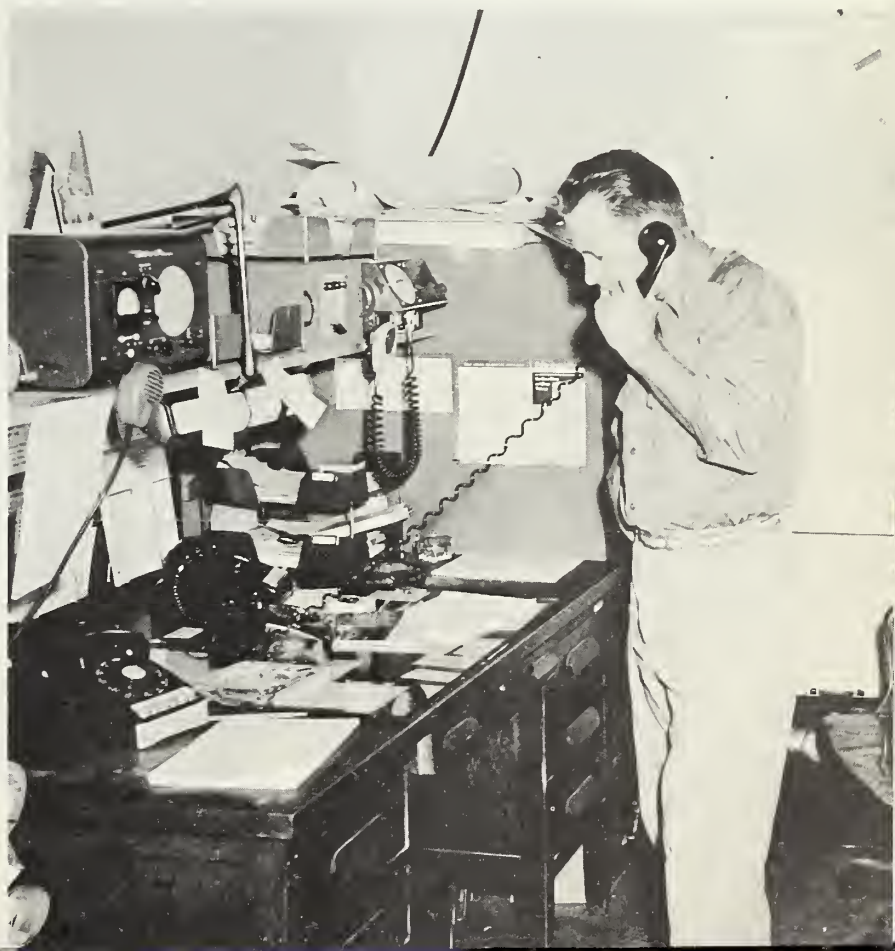


Among the buildings placed under construction in fiscal year 1960 were 10 lookout buildings, 6 offices, 15 barracks, and 25 residences. Standard plans for these and other buildings are developed by regional architects.



Expanding work loads require sufficient housing and other facilities, including office space (above). Some 110 contracts covering construction of buildings, roads, trails and bridges worth more than \$2.8 million were prepared, awarded, and administered. In addition, studies were made of six forest headquarters to determine space needs. Purchases of tree and grass seed amounted to \$245,000.

Conversion of radio systems from the high-interference low band frequency (30 mc) to a high band frequency (160 mc) is continuing, with two more forests being converted. An extensive air-to-air and ground-to-air radio network was installed in 1960 to service both Forest Service and contract aircraft, including "borate bombers."



SPECIAL EVENTS



A highlight of the Fifth World Forestry Congress in Seattle was the planting of an International Friendship Grove with a tree for each nation represented at the Congress. Richard E. McArdle, Chief of the Forest Service, planted a Douglas-fir for the United States.

(Photo — University of Washington)

The first All States Girl Scout Wilderness Encampment was held on the Deschutes National Forest. From a base camp at Todd Lake in the Oregon Cascades, 100 senior Girl Scouts from the United States and 14 Girl Guides from 7 foreign countries back-packed into the Three Sisters Wilderness Area.



RESEARCH



Forest Service research is the responsibility of the Pacific Northwest Forest and Range Experiment Station. The Station issues a separate report. It is now being compiled. When issued it may be secured by writing to:

Director, Pacific Northwest Forest and Range
Experiment Station
P. O. Box 4059
Portland 8, Oregon

RECEIPTS AND EXPENDITURES — FISCAL YEAR 1960

Region 6

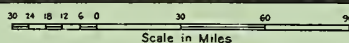
NATIONAL FOREST PROGRAMS

	<u>Receipts</u>	<u>EXPENDITURES</u>	
		<u>Operating</u>	<u>Investments</u>
National Forest Protection and Management & L. U. Projects		\$12,302,176	\$ 1,861,777
Fighting Forest Fires		1,881,740	32,777
Insect & Disease Control		219,665	5,303
Road & Trail System — Construction & Maintenance		3,169,391	7,356,382
Flood Prevention & Watershed Management		36,727	--
Cooperative Deposits (Including timber deposits for stand improvement)			
Operating 9,159		8,784	
Investment 4,017,206	\$ 4,026,365		3,202,016
National Forest & L.U. Area Receipts			
National Forest Fund	75,803,002		
Ore. & Cal. Lands (National Forest)	3,893,856		
Ore. & Cal. Lands (B.L.M.)	512,827		
Warm Springs Indian Lands	185,036		
L.U. Areas	15,097		
Other Miscellaneous Receipts	112,752		
Totals	\$84,548,935	\$17,618,483*	12,458,255
Less Cooperative Deposits Investment Receipts	4,017,206		
Total Operating Receipts and Expenditures	\$80,531,729	\$30,076,738	
*a. Operating Expenditures \$17,618,483			
b. Estimated annual deprec. on roads, trails & other improvements in place on June 30, 1959 8,688,254			
Total	26,306,737		
Amt. by which Receipts exceed operating expend. plus estimated depreciation	\$54,224,992		
Note: Expenditures are on an obligation basis.			
Payments made to States pursuant to 16 USC 500.			
(25% of resource receipts for roads and schools)			
	Oregon —	\$12,629,207	
	Washington —	\$ 6,488,711	
	California —	\$ 92,242	
		\$19,210,160	



LEGEND

- STATE LINES
- COUNTY BOUNDARIES
- ▒ NATIONAL FORESTS
- ▨ NATIONAL FORESTS IN ADJACENT REGION



U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
NATIONAL FORESTS
OF THE
PACIFIC NORTHWEST REGION

You have so many reasons to
PROTECT YOUR FORESTS



Remember-
only YOU can prevent forest fires!